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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/605,977

11/11/2003

Darrell Rinerson

P029.03.CIP14+D23

2976

42958

7590

02/10/2006

UNITY SEMICONDUCTOR CORPORATION
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EXAMINER

THOMAS, TONIAE M

ART UNIT

PAPER NUMBER

2822

DATE MAILED: 02/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/605,977

Applicant(s)

RINERSON ET AL.

Examiner

Toniae M. Thomas

Art Unit

2822

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 November 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) 1-11 and 38-40 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 22-37 is/are allowed.
- 6) ☒ Claim(s) 13, 15 and 20 is/are rejected.
- 7) ☒ Claim(s) 14 and 16-19 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. This Office action is responsive to the amendment received on 23 November 2003.
2. The amendment filed on 23 November 2003 canceled claims 12 and 21. Accordingly, claims 1-11, 14-20, and 22-40 are currently pending. Claims 1-11 and 38-40 have been removed from further consideration as being drawn to a nonelected invention.
3. The indicated allowability of claim 13 as set forth in the Office action mailed on 24 August 2005 is withdrawn in view of the newly discovered reference to Doan (US 6,150,253). Rejections based on the newly cited reference follow.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 13, 15, and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Doan et al. (US 6,150,253).

The Doan et al. patent (Doan) discloses a method of making an integrated circuit (see Figs. 1-15 and accompanying text). The method comprises providing a semiconductor wafer 100 (Fig. 1 and col. 6, lines 25-30);

performing front end of line (FOEL) processes on the semiconductor wafer (see Figs. 5-9 and col. 6, line 63 - col. 7, line 42); forming a plurality of conductive memory devices (only one is shown) atop the processed wafer, each device being operable to be reversibly placed in multiple resistive states (see Figs. 11-13 and col. 7, lines 45-55);¹ forming a sidewall layer 124 around the devices (Fig. 13 and col. 8, lines 33-36); and conducting metallization 126 after the devices are formed (fig. 15 and col. 8, lines 36-41).

The FEOL processes include the formation of a first inter-layer dielectric 116 (col. 7, lines 26-31).

A first metallization 102 is conducted before the memory devices are formed (Fig. 7 and col. 7, lines 3-9).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Toniae M. Thomas whose telephone number is (571) 272-1846. The examiner can normally be reached on Monday through Friday from 8:30 a.m. to 5:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Zandra Smith can be reached on (571) 272-2429. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

¹ The memory devices comprise a chalcogenide layer of material, wherein the chalcogenide material can be reversibly placed in multiple resistive states.

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TMT

06 February 2006

A handwritten signature in black ink, appearing to read 'Mary Wilczewski', with a stylized, flowing script.

Mary Wilczewski
Primary Examiner